

REMARKS

Claims 29-42 are pending in the application.

Claims 29, 34, 38 and 42 were rejected under 35 USC 103(a) as being unpatentable over Bronson et al. (US 6,973,528) in view of Yang et al. (US 5,606,665) and DiMambro et al. (US Pub. No. 2004/0177164). Claims 30, 31, 35, 36, 39 and 40 were rejected under 35 USC 103(a) as being unpatentable over Bronson in view Yang and DiMambro (hereinafter referred to as BYD) as applied to Claims 29, 34, 38 and 42 and further in view of Berry et al. (US 6,766,511, hereinafter referred to as Berry). Claims 32, 37 and 41 were rejected under 35 U.S.C. 103(a) as being unpatentable over Schumann, et al (US Patent No. 6,012,106, hereinafter referred to Shumann). Claim 33 was rejected under 35 USC 103(a) as being unpatentable over BYD in view of Ong (US 5,815,662, hereinafter referred to as Ong).

Claims 29, 32, 34, 37, 38, and 41-42 are amended. No new subject matter is added. Claims 29-42 remain in the case for consideration. Reconsideration and allowance of claims 29-42 are requested in light of the above amendments and the following remarks.

Claim Rejections under 35 U.S.C. § 103

Claims 29, 34, 38 and 42 were rejected as being unpatentable over BYD. The Applicant traverses the rejections for the reasons that follow.

Claim 29 is amended to recite “fetching the portion of the transmit data requested and prefetching any remaining transmit data to match the transmit size by the bridge device, such that any subsequent request for the prefetched transmit data from the expansion device is handled at the bridge device without involving the system memory.” Claims 34, 38 and 42 are also

amended to recite similar features as claim 29. *See* Specification, page 5, lines 13-19, and page 7, lines 3-8.

The Examiner acknowledges that Bronson does not specifically teach the feature of “fetching the transmit data requested and prefetching any remaining transmit data to match the transmit size.” *See* Office Action, page 2, last paragraph, and page 3.

Yang teaches a network adaptor 20 (the Examiner has identified the network adaptor 20 as disclosing the recited bridge device in claim 29) that examines each buffer descriptor 64, 65, 66, 67 to see if their associated buffers 54-57 contain data. “If a buffer has a data packet to be transmitted, the packet is transferred out onto the network.” *See* Yang, page 3, lines 26-43. In other words, Yang examines each of the transmit buffer descriptors 64-67 to determine if data is available in the associated transmit buffers 54-57. If the associated buffers 54-57 have data packet to be transmitted, the data packet will be immediately sent out to the network 30. Yang does not mention or suggest “prefetching any remaining transmit data to match the transmit size by the bridge device, such that any subsequent request for the prefetched transmit data from the expansion device is handled at the bridge device without involving the system memory.”

Further, since any available data in the buffers 54-57 will be immediately sent out by the network adaptor 20 over the network 30 to a networked/expansion device (not shown in Yang’s FIG. 1), Yang has no reason to perform prefetching at all. Yang at best teaches fetching data from the transmitting buffers 54-57, not “prefetching any remaining transmit data to match the transmit size, such that any subsequent request for the prefetched transmit data from the expansion device is handled at the bridge device without involving the system memory” as claimed.

Claim 29 is also amended to recite “wherein the transmit size indicates an amount of data that the bridge device may pre-fetch from the system memory for the expansion device such that requests for the transmit data from the expansion device are handled entirely at the bridge device without involving the system memory.” Claims 34, 38, and 42 recite similar features. *See* Specification, page 4, lines 20-25, page 5, lines 1-20, and page 6, lines 21-25.

As acknowledged by the Examiner, Bronson does not teach descriptor blocks and the associated descriptor data. *See* Office Action, page 3, first paragraph.

Although Yang discloses a data size field 116 in the buffer descriptor (*See* Yang, page 3, lines 55-67, and page 4, lines 1-2), Yang’s data size field merely indicates the amount of data that may be fetched and transmitted over the network 30 to a networked/expansion device (not shown in Yang’s FIG. 1), rather than an amount of data that maybe pre-fetched from the system memory. Because Yang does not perform prefetch, and have no reason to perform prefetch at all. *See* Yang, page 3, lines 38-41.

Claim 29 further recites “searching the memory on the bridge for the read request address.” Claims 34, 38, and 42 recite similar features. *See* Specification, page 5, lines 8-9, and page 6, lines 16-21.

The Examiner acknowledges that Bronson does not teach this feature. Yang teaches examining each transmit buffer descriptor 64-67 to see if the associated transmit buffer 54-57 has data to transmit. *See* Yang, page 3, lines 14-42. If there is data available in the transmit buffers 54-57, the data will be transmitted over the network 30 onto the networked/expansion device without receiving any read request from the expansion device. *See* Yang, page 3, lines 26-43. Yang does not mention or suggest receiving any read request address. As such, Yang

does not search the memory on the bridge device (alleged to be Yang's network adaptor 20) for the read request address.

For at least the reasons discussed, Dimambro does not cure the deficiencies of Bronson and Yang. Claims 29, 34, 38, and 42 are patentably distinguishable over the BYD combination, and allowance of these claims is requested.

Claims 30, 31, 35, 36, 39 and 40 were rejected as being unpatentable over BYD as applied to Claims 29, 34, 38 and 42 and further in view of Berry. Claims 32, 37 and 41 were rejected as being unpatentable over BYD as applied to Claims 29, 34, 38 and 42 and further in view of Schumann. Claim 33 was rejected as being unpatentable over BYD in view of Ong.

For at least the reasons discussed above, the addition of Berry, Schumann, or Ong does not cure the deficiencies of the BYD combination as set forth in detail above with regard to the independent claims 29, 34, 38, and 42 from which these claims depend. It is therefore submitted that claims 29-31, 33-36, 38-40, and 42 are patentably distinguishable over the prior art and allowance of these claims is requested.

CONCLUSION

In view of the foregoing remarks, applicant believes the application should be in condition for allowance. If any questions remain, the Examiner is requested to call the undersigned at (503) 222-3613 if it appears that an interview would be helpful in advancing the case.

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Respectfully submitted,

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